IN THE CLAIMS:

Please amend the claims as follows. The claims are in the format as required by 35 C.F.R. § 1.121.

1.-10. (canceled)

11. (currently amended) ~~The system of claim 10~~ A system comprising:

a PWM modulator;

a driver;

an output stage; and

feedback circuitry;

wherein the driver is coupled between the PWM modulator and the output stage, wherein the driver is configured to receive high-side and low-side PWM signals from the PWM modulator and to drive the high-side and low-side PWM signals to the output stage;

wherein the feedback circuitry is coupled between the output stage and the PWM modulator, wherein the feedback circuitry is configured to provide feedback associated with dead time and shoot-through current in the output stage to the PWM modulator, wherein the feedback circuitry is configured to measure shoot-through current in the output stage, wherein the feedback circuitry includes a resistor coupled in series with a pair of output stage transistors, and a comparator configured to measure a voltage drop across the resistor and compare the measured voltage drop to a threshold level; and

wherein the PWM modulator is configured to adjust the relative timing of the high-side and low-side PWM signals in response to the feedback to optimize the dead time and shoot-through current in the output stage.

13. (currently amended) ~~The system of claim 12,~~ A system comprising:

a PWM modulator;

a driver,

an output stage; and

feedback circuitry;

wherein the driver is coupled between the PWM modulator and the output stage, wherein the driver is configured to receive high-side and low-side PWM signals from the PWM modulator and to drive the high-side and low-side PWM signals to the output stage;

wherein the feedback circuitry is coupled between the output stage and the PWM modulator, wherein the feedback circuitry is configured to provide feedback associated with dead time and shoot-through current in the output stage to the PWM modulator, wherein the feedback circuitry is configured to measure shoot-through current in the output stage, wherein the feedback circuitry is configured to measure distortion in an output signal produced by the output stage, and wherein the feedback circuitry includes distortion circuitry configured to measure one or more harmonics of the output signal produced by the output stage; and

wherein the PWM modulator is configured to adjust the relative timing of the high-side and low-side PWM signals in response to the feedback to optimize the dead time and shoot-through current in the output stage.

14. (canceled)